

## **6. RECOMMENDATION SUMMARY**

### **OVERVIEW**

Create a minimal vessel discharge program, conducting activities in the areas of education, tracking, licensing, information collection and analysis, and support of enforcement activity. Specific recommendations address the following.

#### **All vessels**

- Apply to EPA for federal no-discharge zones (federal NDZs) for blackwater. See requirements contained in PL 1999, ch. 655.
- Make clear that the discharge of sludge is prohibited under state law.
- Support the existing recommendations in the State of Maine Action Plan for Managing Invasive Aquatic Species.
- Require the Department to consider and report back to the Natural Resources Committee concerning issues related to air emissions from vessels by January 1, 2005.

#### **Commercial passenger vessels**

- Multi-issue -- create a registration program for all commercial passenger vessels.<sup>1</sup>
- Blackwater -- in addition to federal NDZ requirements, require reporting of blackwater spills from large commercial passenger vessels<sup>2</sup>, and consider seeking a federal law change to allow greater state regulation of blackwater discharges.
- Graywater -- create no-discharge zones under state law (state NDZs) for graywater discharges from large commercial passenger vessels within federal no-discharge zones (federal NDZs). Extend licensing requirements to graywater discharges from large commercial passenger operating outside NDZs. Require reporting of spills from large commercial passenger vessels.

### **DETAIL (BY ISSUE)**

#### **1. MULTI-ISSUE**

**Registration program.** Create a registration program for commercial passenger vessels to allowing the collection of basic and ongoing information concerning discharges to Maine waters, and to support administration of a minimal vessel discharge program.

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<sup>1</sup> "Commercial passenger vessel" means a vessel that carries passengers for hire except that "commercial passenger vessel" does not include a vessel that:

A. Is authorized to carry fewer than 50 passengers;

B. Does not provide overnight accommodations for at least 50 passengers for hire, determined with reference to the number of lower berths; or

C. Is operated by the United States or a foreign government.

<sup>2</sup> "Large commercial passenger vessel" means a commercial passenger vessel that provides overnight accommodations for 250 or more passengers for hire, determined with reference to the number of lower berths.

## 2. BLACKWATER (SEWAGE)

**A. No Discharge Zones (NDZs).** The Department recommends that the list of areas that are expected to have adequate pumpout facilities within the timeframe of Ch. 655 be applied for as NDZs initially, and that a second group be applied for when pumpout facilities are available. The Department recommends confirming this second list when the Department reports back to the Legislature in January 15, 2005. Tentative lists of NDZ areas are included in the discussion section beginning on page 24. Also, under state law, require that large commercial passenger vessels report blackwater spills to the Department.

### B. Outside NDZ areas

- i. Reporting.** Require that large commercial passenger vessels report blackwater spills to the Department.
- ii. Seek change in federal law.** The Department will consider seeking an exception for Maine in federal law that would allow the state to license large commercial passenger vessels for blackwater discharges in state waters pursuant to the Maine Waste Discharge Law. The Department may also consider recommending more broadly applicable changes to the federal program for all states through the Environmental Council of States (ECOS) or other appropriate mechanism.

## 3. GRAYWATER

### A. No Discharge Zones

- i. State NDZ for graywater (large commercial passenger vessels only).** Prohibit discharges of graywater from large commercial passenger vessels within federal No Discharge Zones (NDZs) for blackwater.
- ii. Reporting.** Require that large commercial passenger vessels report graywater spills to the Department.

### B. Outside NDZ areas

- i. Licensing.** Pursuant to existing statute, prohibit discharges of graywater from large commercial passenger vessels without a waste discharge license. Employ existing standards unless the department determines that other procedures or standards are required.  
*This recommendation does not require a statutory change. The Department has existing authority to license graywater discharges from large commercial passenger vessels.*
- ii. Reporting.** Require that large commercial passenger vessels report graywater spills to the Department.

## 4. AIR

**Legislative reporting requirement.** Require that the DEP (Air Bureau) report back to the Legislature's Natural Resources Committee on any recommendations concerning air emissions from vessels by January 1, 2005.

## 5. INVASIVE SPECIES

**Begin to address the gap.** Begin to address the management gap in invasive species programs for tidal and marine waters. Support the recommendations in the "State of Maine Action Plan for

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Managing Invasive Aquatic Species" (October 10, 2002), Objective 1, Strategy 1A, or these recommendations as further amended by Land & Water Resources Council, and Interagency Task Force on Invasive Aquatic Plants and Nuisance Species. See Appendix A.

## **6. SOLID WASTE**

The Department is proposing to amend 38 M.R.S.A. 417(3) to clarify that the discharge of septage and sludge to Maine waters is prohibited.

## **7 and 8. OIL, HAZARDOUS WASTE**

No suggested changes to statute or rule at this time.

## 7. DISCUSSION OF RECOMMENDATIONS

After reviewing the range of potential impacts from vessel discharge, the information available on issues in Maine, activities in other states, and comments and discussion from the Vessel Discharge Group and others who provided information in response to inquiries, the Department has identified three basic areas that should be strengthened in regard to vessel discharges: control (oversight), information, and public education. The recommendations in this report are intended to address these areas and include a number of tools such as registration, limited licensing, no-discharge zones, and reporting of intended and unintended discharges.

### MULTI ISSUE

The Department is proposing a basic registration program for commercial passenger vessels with 50 or more overnight passengers.

The registration system would collect information specified by the Department such as treatment system type and capacity, passenger and crew capacity, and location and volume of discharges. It would provide funding and staff to provide a number of services, including public education, information for vessel owners and operators, analysis of information received, and support for licensing and enforcement. The Department would have authority to adopt rules, if necessary, to implement this program.

The Department is concerned that there is a lack of basic information about vessel discharges, such as the types of information that had been routinely available from licensed land-based dischargers in Maine for many years. This includes information such as the location, volume, and content of discharges to state waters, the types of treatment systems being used, training level of the operator, and timely data about volume, type and location of unintended discharges. This lack of information makes oversight, assessment of potential risk, and tailoring of a program to meet the particular needs of the regulated community difficult.

Statutory language concerning proposed registration requirements is provided in the draft amendment section.

It was suggested by a participant in the Vessel Discharge Group that activity logs for discharges be required. There was also a suggestion that the "activity log" requirement be kept separate from registration, in case the proposal for registration was not adopted. The Department is recommending an "activity log" requirement for large commercial passenger vessels, but has chosen to combine it with the registration program for commercial passenger vessels. The Department is concerned that sufficient resources may not be available to analyze and make appropriate use information within such logs, without the additional resources provided by the registration program.

The table below compares the services/information provided by a separate "activity log" requirement, and an activity log requirement together with a registration program.

Activity Log	Registration Program
1. Provide information on location and volumes of discharges, treatment technology, holding capacity, and passenger capacity.	1. SAME
	2. Analysis of information received in activity logs, and oversight of non-submission of logs.

	3. Increased information for vessel owners and operators concerning state requirements.
	4. Support of enforcement of state requirements.
	5. Additional public education concerning no discharge zones that may be a pre-requisite for successful implementation of the NDZ program.
	6. Oversight concerning solid and hazardous waste disposal plans.
	7. Support, oversight, and education related to licenses for the discharge of graywater from large commercial passenger vessels.
	8. Analysis or response related to notification of significant blackwater or graywater spills.
	9. Work with the Clean Government Initiative to assess and improve discharge technology on state-owned vessels.
	10. Design of modeling studies. Additional funding would be required for such studies.

A minimal vessel discharge program such as that described above would require additional funding and creation of at least one position (ES III). An existing position is not available at the Department. The ES III would be charged with running the registration program as well as licensing blackwater discharges, providing public education and information to the regulated community, processing activity logs, conducting any necessary rulemaking, and related activities. Assuming registration of all commercial passenger vessels with 50 or more overnight passengers, using the definitions in LD 1158, and based upon estimates of the number of ships operating in Maine, the proposed *annual* registration fee would be:

- \$1,000 for ships from 50 up to 250 overnight passengers; and
- \$3,100 for ships 250 or more overnight passengers (based on capacity).

These numbers were arrived at by considering the funding required for an ESIII, broken down by the number of vessels in two size categories, with a lower fee for the small commercial passenger vessels.

See Appendix B for information concerning other fees paid commercial passenger vessels.

During the first year or two of a vessel discharge program, the Department would expect to emphasize education rather than enforcement. The registration fee as proposed would not support the modeling study or additional enforcement. The Department has not factored the modeling cost into the registration fee because it is not an ongoing cost, and it is not possible for the Department to provide a reliable estimate of the cost at this time. It could be between \$10,000 and \$100,000 depending upon what work is done.

## BLACKWATER

- PL 1999, Ch. 655 requires the Department to submit a list of areas recommended for designation as federal NDZs, within which all discharge of blackwater is prohibited from all vessels, by January 15, 2004. The Department took advantage of the stakeholder process for vessel discharges to get some input from the group on a proposed list. Although there appeared to be general agreement on the

need for NDZs, there was no agreement on an appropriate schedule. The Department has proposed a minor change to the Chapter 655 schedule, in order to reflect the anticipated schedule for availability of boat pump-outs.

- The Department has a general concern that the standards to which marine sanitation devices (MSDs) are designed are old, and intended to produce effluent with a higher level of bacteria than is currently allowed from licensed land-based dischargers to marine waters in Maine. Also, there are no ongoing monitoring requirements to help detect inadequately functioning systems, training requirements for operators, reporting requirements to provide information concerning spills, or other requirements that are routinely required of licensed dischargers in Maine.
- The Department is particularly concerned about the risk posed by very large commercial passenger vessels, which have the potential to release a large amount of contaminated effluent in the event of a malfunction.
- The larger commercial passenger vessels have the ability to hold blackwater and discharge it outside of state waters. Most have agreed to do this now, based upon International Council of Cruise Lines (ICCL) guidelines, although the guidelines allow for discharge inshore if a ship has advanced treatment technology, as determined by the industry. The Department acknowledges that some of this technology is very good, and supports its development. However, that does not remove the need for state oversight of discharges within state waters.

#### **A. No Discharge Zones (NDZs)**

As part of the Vessel Discharge Group process, the creation of No Discharge Zones (NDZs) was considered as one of the options to addressing blackwater discharges. Federal NDZs apply to all vessels. The Department must determine that (1) the waterbody needs additional protection and (2) that there are adequate pumpout facilities to serve the transient boat traffic. As part of the 2001 Maine Pumpout Plan (see Appendix C) the Department created an inventory of the roughly 350 navigable harbors along the coast and ranked those harbors considering criteria including existing point sources, water quality, sensitive resources, boat services, number of boats, flushing, and existing pumpouts.

Chapter 655 requires that the Department submit a draft list to the Legislature by January 2004, and apply to the U.S. Environmental Protection Agency (EPA) by January 2005. Informal and formal processing of the application by EPA may take up to a year.

In order to receive a no-discharge zone designation for a particular waterbody, the Department must determine that the waterbody needs additional protection and that there are adequate pumpout facilities to serve the transient boat traffic. Pumpout service for commercial passenger vessels is not a requirement under federal law. As part of the 2001 Maine Pumpout Plan (see Appendix C) the Department created an inventory of the roughly 350 navigable harbors along the coast and ranked those harbors according to the following criteria.

- Existing Point Sources, including municipal treatment plants, industrial sources and sewer overflows.
- Water Quality, including water classification attainment and bacteria levels.
- Sensitive Resources, including shellfish areas, endangered species habitat, and natural areas.
- Boat Services, including marinas, boatyards, fuel docks and public launching areas.
- Number of Boats, consists of a rough estimate of all boats using the harbor.
- Flushing, consists of a rough description of the harbor's hydrographic aspects.
- Existing Pumpouts, consists of a evaluation of the number of pumpout stations serving a harbor.

The ranking led to the development of the 100 priority harbors for pumpout service. The Department's goal is to ensure there is a pumpout station within 4 nautical miles of the 100 priority harbors. The No Discharge Zone priority list<sup>3</sup> was drawn from the priority harbors.

The Department sought input from the Vessel Discharge Group on a first-draft list of possible areas for NDZ designation. The Department received suggestions to accelerate the process in regards to Casco Bay, by applying before the Chapter 655 deadline of January 15, 2005. The Department does not feel it has the necessary resources to accelerate this process without unacceptably weakening existing programs. It was also suggested that Casco Bay be used as a pilot project in order to identify implementation problems and improve education methods prior to designating additional areas. The need to actively gain the support of affected coastal communities prior to designating NDZs was also noted, and the Department strongly agrees with this comment. The Department believes that using Casco Bay as a pilot, and taking the necessary time to building support for the program in communities would require at least two years between the designation of Casco Bay as a NDZ and further designation of other areas. However, this would push the second set of designations into 2007, which many on the stakeholder group considered an unacceptable delay of the schedule set out in Chapter 655.

Based on a review of the data and sensitivity to the concerns of the stakeholder group, the Department is recommending that a group of waterbodies be in the first round of No Discharge Zone applications. Included in the list are most of the major boating harbors of the state and coincidentally, the harbors most frequented by large commercial passenger vessels. The Department is recommending that all of Casco Bay be designated a No Discharge Zone. Twelve of the priority harbors are in Casco Bay, and treating the entire bay together will support more efficient administration of the program. Casco Bay has the highest density of recreational boat traffic in the State. The balance of the waterbodies were identified as priority harbors in the 2001 Maine Pumpout Plan and upon further analysis were found to warrant additional protection as no discharge areas due to their environmental sensitivity, water quality and boat traffic. The tentative list for application within the framework of Chapter 655 follows in Table 1.

Table 1. No Discharge Zones to be Applied for by January 15, 2005.

<b>Waterbody</b>	<b>Town</b>
Casco Bay	Cape Elizabeth, South Portland, Portland, Falmouth, Cumberland, Yarmouth, Freeport, Brunswick, Harpswell, Phippsburg
Bar Harbor	Bar Harbor
Belfast Harbor	Belfast
Saco River	Biddeford/Saco
East Boothbay	Boothbay
Boothbay Harbor	Boothbay Harbor
Camden Harbor	Camden
Kennebunk River	Kennebunk/Kennebunkport
Portsmouth Harbor	Kittery
Northeast Harbor	Mount Desert
Sommes Sound	Mount Desert
Rockland Harbor	Rockland
Rockport Harbor	Rockport
Christmas Cove	South Bristol
Southwest Harbor and Manset	Southwest Harbor

<sup>3</sup> The list of up to 50 significant harbors or bays required by PL 1999, ch. 655.

Stonington Harbor	Stonington
Thomaston	Thomaston
Bass Harbor	Tremont

In addition to the initial list of No Discharge Zones, the Department feels that a number of other harbors also warrant designation due to environmental and boat traffic concerns. However, these waterbodies are not expected to have adequate pumpout facilities by January 15, 2005, so that it would not be possible for the Department to successfully apply to EPA for designation of the waterbodies as NDZs by that date. In order to have the flexibility to continue to recommend waterbodies for No Discharge Zone designation as appropriate at a later date, the Department is recommending an amendment to Chapter 655.

Table 2 lists the harbors that warrant designation, but are not expected to have adequate pumpout facilities by January 15, 2005.

Table 2. Recommended future No Discharge Zones

Waterbody	Town
Bucks Harbor & Lem's Cove	Brooksville
Eastern Harbor	Addison
McHeard Cove	Blue Hill
Round Pond	Bristol
Castine	Castine
Northwest Harbor	Deer Isle
Ames Cove	Islesboro
Cape Porpoise Harbor	Kennebunkport
Pulpit Harbor	North Haven
Owls Head Harbor	Owls Head
Benjamin River	Sedgwick
Poorhouse Cove	South Bristol
The Gut	South Bristol
Love Cove	Southport
Burnt Coat Harbor	Swan's Island
Perry Creek	Vinalhaven
Winter Harbor	Vinalhaven
Carver's Harbor	Vinalhaven

Pursuant to LD 1999, Ch. 655, the Department will report to the Legislature's Natural Resources Committee by January 15, 2005 concerning plans for enforcement of no-discharge zones in the State.

## B. Outside NDZ areas

Outside of NDZ areas, the Department feels that Maine's long-term goal should be to bring large commercial passenger vessels (250 or more overnight passengers) within the state's existing waste discharge licensing system. If it is necessary to discharge to state waters, the vessels should be subject to the same standards and controls as other dischargers of sewage to state waters. This would require a change in federal law. The Department proposes building a case, based upon registration information and other sources, for either seeking an exception for Maine to allow appropriate licensing, or a broader solution for coastal states working through ECOS, or both.



### **C. Memoranda of Understanding and Industry Guidelines**

The Department is not proposing to seek memoranda of understanding (MOAs) with representatives of large commercial passenger vessels at this time. The Department feels that such agreements can be a useful adjunct to a regulatory program where (a) the agreements are intended to recognize members of an industry who intend to move beyond set minimum standards, or (b) or to provide a short-term stopgap measures where other tools are not available. The use of MOAs on this subject would be for the latter purpose. If Maine proceeds to establish no-discharge zones in areas of concern along the coast in the near future, as anticipated by existing legislation and the proposal in this report, then MOAs may not be of significant added value for these areas.

In general, the Department does not consider an MOA to be an adequate substitute for establishing minimum regulatory standards (licensing or a no-discharge zone) for waste discharges to waters of the State, which is the accepted and historically proven approach to discharges to Maine waters. The Department is also concerned that seeking MOAs in regards to areas outside no discharge zones would consume considerable staff time, which would be better spent on other aspects of an early vessel discharge program, such as education.

### **GRAYWATER**

- Recent monitoring data from Alaska indicates that graywater discharges can contain as much bacteria as blackwater, in addition to other materials. Neither the federal government nor the Department have required that graywater be treated in Maine, and it may be discharged anywhere within state coastal waters. Maine DEP has the authority to require that these discharges meet licensing requirements but the Department has not done so, having been land-focused in the past.
- The Department is particularly concerned about the potential risk posed by large commercial passenger vessels, which have the potential to release large amounts of graywater.

The Department is proposing to extend licensing, under existing statutory authority, to graywater discharges from large commercial passenger vessels. Licensing of graywater discharges from small passenger vessels is not recommended at this time, as there is insufficient information to determine if such licensing is appropriate. Additional information from the registration program may allow for a re-assessment of these discharges in the future.

The licensing threshold proposed at this time, based on what is defined as a "large commercial passenger vessels" is intended to address vessels that currently have the ability to hold graywater. Ships in Alaskan waters of this size are holding their graywater or treating it prior to discharge. If a vessel has the ability to hold graywater in Maine waters, then requiring licensing of graywater discharges should not unacceptably burden interstate commerce. If a vessel of this size visiting Maine waters is determined not to have the capacity to hold graywater, the Department would expect to provisionally license it and incorporate a compliance schedule. Such provisional licensing in this narrow case is considered appropriate because the industry is essentially being licensed for the first time. And, allowing for such licensing will help to avoid commerce clause issues.

If the Department were to license a class of vessels such as large commercial passenger vessels, under the Maine Waste Discharge Law, it would employ existing licensing procedures and standards unless the Department determined that other procedures or standards were necessary in the future. It should be noted that the bacterial effluent standard currently required for land-based dischargers in Maine is 15 colonies per 100 ml. This licensing standard was based upon a determination that controlling at this level was feasible for the existing land-based systems. The effluent limit is very similar to the ambient level

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used by the Department of Marine Resources in the protection of shellfish beds, which is the same as the National Shellfish Sanitation Plan limit: the geometric average of 14 per 100 ml for fecal coliforms.

The annual licensing fee for large commercial passenger vessel proposing to discharge graywater to state waters would be \$1,200 a year, based upon current statutory.<sup>4</sup> The Department is expecting to review fees for all categories of discharges in the near future.

## **AIR**

Although air issues were considered (there was a presentation to the stakeholder group), there was insufficient time to address this issue. The Department is recommending that staff of the Department's Air Bureau look further into these issues, and report back to the Legislature's Joint Standing Committee on Natural Resources by January 1, 2005 with any recommended changes or actions.

## **INVASIVE SPECIES**

The Department considers the risks of invasive species in marine waters to be important and inadequately addressed currently. However, there is an existing plan to begin to close this gap, and the Department is recommending continued support for these efforts, rather than new recommendations based upon the brief review afforded by the current process.

Note: John McPhedran, the Invasive Species Program Coordinator at the Department, has recently approached staff at the Department of Marine Resources (DMR) concerning implementation of the strategy outlined in the "State of Maine Action Plan for Managing Invasive Aquatic Species." The Department of Marine Resources is currently considering how best to proceed, and they are the appropriate lead agency on this issue. It may not be possible to further clarify this recommendation before the date this report is due to be submitted.

## **OIL**

The Department is not recommending changes to statute or rule at this time.

Maine statute currently prohibits the discharge of oil or contaminated effluent without a license meeting specified statutory criteria.<sup>5</sup> Maine's existing statutory standard is stricter than federal law. An informal inquiry of Department staff resulted in no memory of a vessel ever applying for such a license. The approach taken by Department staff historically has been to work toward prevention of all oil discharges from vessels.

## **HAZARDOUS WASTE/MATERIALS**

The Department is not recommending changes to statute or rule at this time.

There is an existing statutory prohibition on the discharge of hazardous matter, which includes hazardous waste, to waters of the state.<sup>6</sup> In addition, the Hazardous Waste Management Rules, Chapter 851.12A chapter 856.4E prohibit treatment and handling (which includes incineration) without a license. A discharge of hazardous matter, including hazardous waste, must be immediately reported.<sup>7</sup>

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<sup>4</sup> Category: sanitary wastewater, commercial sources. See 38 M.R.S.A. § 353-B(2)(A).

<sup>5</sup> 38 M.R.S.A. § 543.

<sup>6</sup> See 38 MRSA § 1317-A.

<sup>7</sup> 38 MRSA Section 1318-B

## **SOLID WASTE**

There is an existing statutory prohibition against putting refuse in the water.<sup>8</sup> The Department is proposing the following amendment:

**3. Refuse.** Any scrap metal, junk, paper, garbage, septage ~~septic tank sludge~~, sludge, rubbish, old automobiles or similar refuse.

During the normal use of some treatment systems, sewage sludge is generated that must occasionally be wasted from the treatment system. The wasting and subsequent discharge of accumulated sludge can be planned and managed to occur offshore where the discharge will have a limited impact. Less sophisticated treatment systems do not generate sludge, so are not affected by restrictions on sludge disposal.

The change is proposed would clearly prohibit the discharge of sludge, such as sludge from a marine sanitation device (MSD). Maine statutes do not appear to have a plain statement that sludge may not be discharged to waters of the state. The changes would also clarify the existing provision by using terms ("septage" and "sludge") that are already defined by statute in 38 MRSA 1303-C.<sup>9</sup>

It should be noted that the "Alaska Law" requires that the owner or operator of a commercial passenger vessel provide the Department with plans describing policies and procedures for disposing of hazardous and solid wastes. Under the proposed registration program, a vessel owner or operator would be required to certify that plans are available for the vessel, and to provide them to the Department upon request.

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<sup>8</sup> See 38 MRSA 417(3).

<sup>9</sup> "Septage" means waste, refuse, effluent, sludge and any other materials from septic tanks, cesspools or any other similar facilities. "Sludge" means nonhazardous solid, semisolid or liquid waste generated from a municipal, commercial or industrial wastewater treatment plant, water supply plant or wet process air pollution control facility or any other waste having similar characteristics and effect. This term does not include industrial discharges that are point sources subject to permits under the federal Clean Water Act, 33 United States Code, Section 1342 (1999).